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ABSTRACT

For a potential drop-out who had difficulty comprehending what she had read because she could not recognize a word, even though she often knew its meaning, a methodology for teaching word decoding provided an effective technique for achieving systematic early gains. Lessons for the eighth-grade girl followed this methodology: (1) decoding the unfamiliar word, based on syllabication; (2) recognizing syllables in words in print; (3) recognizing syllables in words by counting vowels; (4) practicing blending single consonants with the vowel stem; (5) learning basic pronunciation rules; (6) recognizing the individual consonant in its sound-symbol relationship; (7) listening to consonants and vowel sounds; and (8) exercising higher order skills such as literal interpretation, creative comprehension, and inference concomitantly with the sound-symbol relations. After tutoring, the Stanford Diagnostic Reading Test, Blue Level was administered in two sessions as a power test in which no time constraints were set. Results showed large discrepancies between reading comprehension (7.5) and word meaning (5.2), but the great improvement that she made in five months was significant. The gains in word decoding contributed to improved performance in reading and was a major treatment component for the girl's emotional, attitudinal and behavioral problems that were blocking effective instruction. (Nineteen references are attached.) (JK)

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Phonics and Comprehension

A New Look

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Abstract

Through the title, "Phonics and Comprehension: A New Look," the presenters explain how an eighth grade potential drop-out was enabled to remediate her deficiencies in reading comprehension and show improvement from a third grade level to a seventh grade level in a school year. The traditional methods of teaching reading comprehension had not worked for her. She was on her way to becoming one of the many drop-outs from school.

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The school drop-out rate has risen again. Educators see poverty, language problems and cultural differences as among the reasons for the drop-out problem and for the low school achievement levels for a staggering number of black students.¹

An independent body of inquiry commissioned by National Coalition of Advocates for Students, having investigated the status of children of greater need in public schools, published in 1985 a report Barriers to Excellence: Our Children At Risk in which was revealed that, compared with white students, black students are three times more likely to be expelled from school, often for trivial reasons, and are three times more likely to be placed in classes for the minimally mentally handicapped. They drop out of school at a rate more than twice that of white students.² Sometimes a lack of adequate regular education options dictate the misplacement of children with diverse learning styles.³

In addition, poorly devised criteria exist for entering a child into the categorical special programs. Inferior classrooms and failure to establish exit criteria that clarify what the child must accomplish to qualify to return to the regular classroom often contribute to inappropriate placement.⁴ Children with bruised egos and low self-esteem, who find themselves separated from their family environment for any number of traumatic reasons, are among the highest potential drop-outs. Tulsa was one of these children.

A pretty 14 year-old black girl, Tulsa had behavioral and academic difficulties almost from the beginning of her formal education. She had been referred to the Department of Social Services of the City of

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New York by her grandmother and legal guardian because she was disobedient, hyperactive and beyond her control. Tulsa's mother had died of a drug overdose when the girl was two. She made a good adjustment to the group home where she was placed by the Department, being cooperative and responsive to staff and making superficial friendships with her peers.

The WISC-R examination, which was administered to her upon placement, revealed global intellectual ability in the upper limits of the mentally deficient range with significant verbal deficits, and relatively better (borderline) non-verbal ability. Her visual motor organization was not good, suggesting a possibility of minimal brain dysfunctioning.

Skills, particularly as measured in the performance section, suggested attention and concentration problems and possible emotional interference with her cognitive functioning, which could influence her reading ability. Written expression was emotionally constricted, somewhat reflective in thought and marked by serious grammatical errors.

Tulsa did very well in knowledge of social rules and expectations, in her ability to pick out missing significant details in familiar situations and in non-verbal social awareness. She was just below average in verbal concept formation. She was borderline defective in information about the world as well as non-verbal arranging and perceptual ability. Her lowest score was on a routine learning task, where her depressed mood probably had an adverse effect. Her academic skills were all at or below third grade level, and below the first percentile. There was considerable scatter on the various

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subtests ranging from defective to high average suggesting that, under optimum conditions, Tulsa would be capable of average intellectual effectiveness.

Her school record reported that her retention, comprehension, and literal knowledge needed improvement, that her interpretive and evaluative comprehension was unsatisfactory, that her vocabulary needed remediation and that she was unable to write even simple sentences or to express her ideas in writing. She needed intensive remediation in all major subject areas. It seemed essential that Tulsa be removed from regular class and be placed in a special education setting where she could receive individual attention. Because she sometimes responded to threats to her self-esteem with angry retaliatory behavior, she was placed in a class for emotionally disturbed.

While admitting that Tulsa did have problems controlling her anger, the group home counselor felt that she may also have been suffering from scapegoating at school. It seemed that her fighting was most likely related to her temorous self-esteem and her sensitivity to rejection. School attendance with minimal academic ability represented an unbearable burden to Tulsa, both in terms of her inability to cope with the work and of her position as the butt of classmate's unkind humor. She said she did not like school and seemed to feel both academically handicapped and socially outcast. It appeared that Tulsa felt helpless to overcome her circumstances. However, she said she was determined to graduate from eighth grade at her present school this year and to continue on to high school where she had some friends.

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Statement of the problem: Because Tulsa was behind in her academic studies and school, to her, was an unfriendly place, special tutoring services in functional literacy were initiated to help her at the group home where she resided.

Review of the literature: An examination of the literature was made by the researcher to determine the methodologies used in the school setting to teach students to read, what learning theorists hold about teaching reading, and some research experiments related to the problem. This was done in order to determine why Tulsa did not benefit from present methodologies used with her, and why another tract for learning was required.

While the skills of reading have been identified through years of educational research into the psychology of reading, these skills merge imperceptibly toward the total process of reading.⁵

Reading of words is accomplished by two separate but interrelated processes, decoding and sight word recognition. Decoding is a process by which words not automatically recognized are translated into inner speech, providing the equivalent of hearing the word. The process of decoding includes analysis of the word into parts, retention of sounds in correct sequence, and blending of the sounds to represent the word in inner speech. Meaning is available if the word is in the reader's hearing and speaking vocabulary (Nila Smith, 1965).⁶

Configuration method, which identifies the word through its shape, becomes less useful with similar-appearing words. Poor readers and young children are seldom helped when they meet other words with similar characteristics. The major problem with the

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configuration process is that the method does not develop a reliable identification for the configuration. Since the whole-word, configuration, does not work with all children, other methodologies are used to supplement it.⁷

Morphemic or structural analysis is the identification of a word through an examination of its meaningful elements within the unidentified word itself: the root, the prefixes and suffixes, inflective endings and changes, contractions, and syllables.⁸

Sight word recognition includes a process of matching the visual perception of the word with a visual template stored in long term memory during original learning. The sight word method instruction focuses on whole words rather than on sounds or parts of words, since whole words have meaning and therefore, it is believed, interest for learners.⁹

Sight words for non-readers or very poor readers consists of 220 Dolch words (110 easier and 110 harder), which are words that make up the great majority of primary reading. Any child who doesn't know the Dolch or equivalent list of words is taught them in formal reading lessons.¹⁰

The major source of sight words for less-handicapped readers is the material they have to read found in text books or other books written on their grade level. The sight words and vocabulary is specific to fields of science, social studies, and other content subject areas.¹¹

Tulsa's individualized educational program assigned her to work to remedy weaknesses in word knowledge and interpretation of social situations through spatial visualization, visual discrimination and

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graphomotor skills. Her perceptual analytic intergration ability and spatial visualization were revealed by the WISC-R test to be extremely poor, while her relative strengths were demonstrated to be in conceptual development, sequential skills, ability to discriminate between essential and non-essential details, and psychomotor speed.

Sylvester and Kurst (1943) investigated the sociodynamic aspects of reading problems and found them to be anxiety caused by reading failure, inadequate capacity for mastery, and feeling of loss of love. The disturbances in reading were found to be disturbances of the exploratory functions and symptomatic treatment by pedagogical methods was determined not to be enough.¹²

Bormuth (1971) pointed out that there was no way to decide just how difficult a passage would be for students whose abilities vary. Moreover, the background, interests, and aspirations of children affect their performance in ways that are not yet measurable. He maintained that comprehension is both one of the most important and one of the weakest areas of instruction.¹³

Thorndike (1934) maintained that learning involves the making of new mental and neural connections and the discarding or strengthening of old connections. The law of learning readiness that he posited holds that, when a conduction unit is ready to act, conduction by it is satisfying and failure to conduct, or being forced when not ready, is annoying. Repetition with satisfaction strengthens the connection which it follows and to which it belongs, while disuse weakens the connection.¹⁴ Skinner (1958) suggested small steps in the development of new mental and neural connections,¹⁵ while Bruner (1983) urged huge steps, alternating on occasion with smaller ones.¹⁶

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Just (1977) held that comprehension of language was often acquired through a set of procedures closely tied to the structures and content of the linguistic data.¹⁷ Piaget (1926) had emphasized the importance of involving learners in the process of acquiring knowledge.¹⁸ Unless students are involved in their own learning processes, Ausubel (1964) found, they were likely to have a lack of language skills, meaning not only a limited vocabulary but also a lack of words that extended to a lack of the very thought processes that lie behind languages.¹⁹ Also, reading need not follow oral development, but may be parallel to it and contribute to the general language store (Goodman, 1978).²⁰

The teacher must make certain that the tasks are interesting, relevant, and varied and that the students are motivated to engage in them. Teachers are most effective when they allow more time to reading, proportion work time, closely monitor pupils' efforts to ensure continued engagement, provide for frequent repetition, and drill to overlearning (Duffy, 1981²¹; Rosenshine, 1980²²).

Experiments in the field: Gann (1945) concluded that the bulk of experimental material substantiated her hypothesis that retarded readers were less able than successful readers to cope with reading and social situations that confronted them. She matched groups of 34 boys and girls in grades 3 through 6 for intelligence on the Kernan-Anderson Test. A significant difference was found between retarded readers and good readers on mental age. On the Gates Survey and on the oral reading age from Gray's Oral Reading Paragraphs, significant differences were found between the groups with respect to total reading age, vocabulary age, comprehension age and speech age. Differences were also noted on the check list and the visual

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perception, the retarded readers showing greater difficulty in coping with the task.²³

Durkin, (1976) studied 135 teachers divided into 34 schools. On the assumption that there is less comprehension instruction in the primary grades because of the concern for decoding skills, 4th grade was selected because it is commonly believed that at this level a switch is made from learning to read to reading to learn. Twenty-four observers found that the amount of time observed teachers spent during the reading period on comprehension study skills was less than 1%. Much time was spent on written assignments, many of which caused major problems for poor readers. Considerable traffic in and out of classrooms for grouping was common.²⁴

Rohwer et al. (1967) presented 24 objects in the form of pictures of objects or printed names of objects to 96 third and sixth grade children. For both older and younger students, pictorial material produced more efficient learning than did the printed names.²⁵

Summary: A review of the literature revealed that the process of decoding for reading causes major problems in the area of configuration and morphemic or structural analysis. Ausebel (1964) suggested that a lack of language skills might not only be caused by a limited vocabulary but also by a lack of experiences. Gann (1945) and Durkin (1976) found that retarded readers were frustrated in their attempts to learn to read. Rohwer et al. (1967), however, found that pictorial material produced most effective learning.

No study was found in which one systematic method was used to teach decoding and building of sight words while, at the same time, developing skills in comprehension. This research presents the results

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of teaching reading in which such a method, based on Thorndike's theory of building of neural connections and discarding or strengthening of old ones, was used.

Methodology: The researcher, on meeting with Tulsa at the group home, brought to her attention the fact that there are about 50,000 word entries in the average dictionary, and that all words consist of one or more letters of the alphabet. The person learning to read can either learn all the words by sight or learn how the letters in the word are joined together to make the word they make. Tulsa agreed that she did know the letters in the words she didn't recognize by sight and that it would be easier for her to learn how letters are combined to form words. It was decided that the researcher and Tulsa would meet together twice a week, for an hour each session, at the group home. Sessions began in January and continued until the first week in June.

Tulsa was taught one method to use in decoding the unfamiliar word, based on syllabication. The common element present in every word is syllables, short words containing fewer syllables than longer ones, but all words containing at least one syllable. Tulsa was given a idea of syllabication orally at first through the use of the cue word 'know,' to which other syllables were added: 'know,' 'knowing,' 'knowingly,' 'unknowingly.' She orally compared word lengths to the cue word 'know' and its derivatives.

Next, Tulsa was taught to recognize syllables in words in print, even though the word itself might be unfamiliar to her at the time. She was taught to find syllables in words by following certain rules: (1) the vowels were long and short a, e, i, o, u; 'r' vowels consisted of

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these vowels with 'r' immediately after them (ar, er, ir, or, ur); vowel combinations, 'specials', oi-oy, ou-ow, ei-ey, oo, au-aw, letters w and y when they were not the first letter in the word.

Tulsa was taught to recognize syllables in words by counting the vowels. She was told that there would be the same number of syllables in the word as there were vowels. Vowels were to be counted according to specific rules: (1) when there is only one vowel in the word, there is only one syllable (cup); (2) when two vowels come together in a word, count the combination as one vowel sound (boat); (3) when 'e' comes at the end of a word, do not count it (home) [although she was also told to count 'e' if 'e' was the only vowel in the word (he)]; (4) when 'r' comes right after the vowel, count it as part of the vowel (car); (5) 'w' is a vowel when it was not the first letter in the word and not part of a consonant blend, [of when there were three, dw, sw, tw] (window); (6) 'y' is a vowel when it is not the first letter in a word (by).

Tulsa was given definite exercises to blend single consonants with the vowel stem: 'a' (as in at), 'ba', 'ca', 'da', 'fa', 'ga', 'ha', 'ja', 'ka', 'la', 'ma', 'na', 'pa', 'qua', 'ra', 'sa', 'ta', 'va', 'wa', 'ya', 'za', 'cha', 'sha', 'tha', 'pha'. This exercise was recorded on a cassette tape for every vowel and given to Tulsa for use at the tutoring sessions and also to listen to at her convenience.

She was taught that the vowel sounded its long sound when it was closest to final 'e' in a word (rope) or when it was part of a double vowel in a word (rain). Otherwise, the vowel would sound its short sound (as in at). No "exceptions to the rule" were taught, other than that she was cautioned that, if the vowel didn't sound its long sound in a word, she was to make it sound its short sound, or when

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the vowel didn't sound its short sound in a word, to make it sound its long sound. She was to rely on sounding the word in her mind to come to either the word itself or to a close enough approximation to the word, that she would recognize it in context.

Whole words were not taught at first. Instead, Tulsa was taught the individual consonant (e.g. 'b') in its sound-symbol relationship. She was to find more words in material of her own choosing containing this sound-symbol relationship, no matter which place it occupied in the word. She was given model words which contained the sound-symbol relationship in different places in the word (e.g. ball, quaterback, tub). Initial instruction took the form of telling Tulsa the sounds of the various letters. Later these sounds were blended into syllables and then into words.

By day 9, having been introduced to three consonants a day, all single consonants and consonant digraphs (ch, sh, th, ph, ng, nk) were introduced. Tulsa was expected to be able to recognize the number of syllables in the words in which she found the consonants and consonant digraphs, even when unfamiliar words, and to recognize the sound of the individual consonants or digraphs in the word.

From day 10 to day 21, Tulsa was introduced to the vowel sounds, practiced blending consonants with the vowel sound, and built ability to decode simple words (e.g. words based on short 'a' (as in at) vowel 'add,' 'and,' 'as,' 'at,' 'an,' 'am,' 'ash.'

Because she had a store of sight words with which she could compare unknown words, she quickly caught on to the process.

At first, when Tulsa encountered difficult words, she seemed to grow anxious. Her low frustration tolerance seemed particularly

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apparent when she was asked to work on her own. At times such as these, Tulsa copied unfamiliar words onto a pad paper. She would go through the reasoning process. She would count the vowel and put the syllables together the way they came in the word, thus decoding the word, slowly and laboriously at first, but then with greater speed. Proceeding from simple words where individual consonants were blended with the vowel, she developed capacity to cope with words where a consonant blend was blended with the vowel, from one syllable words to two-syllable words to polysyllabic words ('brush,' 'British,' 'expect,' 'silly,' 'bodkin,' 'gentleman,' 'confident,' 'acceptable'). Some difficult words she decoded did not follow the rule, since there were less syllables in the word than the number of vowels indicated. When this happened, by using the decoded word in context, she recognized the word ('de served,' instead of 'de serv ed,' 'op posed,' instead of 'op pos ed'). As she gained greater skill in the process of syllabication, need to copy the unfamiliar word decreased and then stopped.

Higher order skills such as literal interpretation, creative comprehension and inference were taught concomitantly with the sound-symbol relations, the words and examples found by Tulsa shaping and influencing the line of questioning and interaction between her and the researcher. Although at first Tulsa was unable to read words in the text, she could read information presented pictorially and in graphs and diagrams. Lessons followed the same general methodology: the presentation of the sound-symbol relation, listening to the sound in its various places in cue words, finding other words containing this sound-symbol relation (with review of sound-symbol

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relations that had been taught previously where they were contained in the sample words found by Tulsa.

Tulsa worked pleasantly and agreeably, though she seemed sad and overwhelmed at times with the homework assignments. In her tutored classes she also examined the content of homework assignments for examples of sound-symbol relations. Her vocabulary store grew as she, through oral discussion, used a cue word from her tutoring texts, or another word she found herself, to engage in higher order thinking skills. The researcher and Tulsa would preview a selection together, making use of pictures and other visual helps before reading it through, giving attention to determining the basic ideas of the author. In this way she had an overall idea of the content of the article before reading it. Where a word was unfamiliar to her, she would go through the process of decoding it. Having finished reading the passage for the first time, she would again read it with greater ease.

As Tulsa's vocabulary grew, it became possible for her to decode unknown words whose meaning she ascertained by looking the word up in the dictionary, or by seeing it used in meaningful contexts.

At some tutoring sessions, Tulsa would brood about what she saw as her poor lot in life as well as the injustices she felt had been inflicted on her. There was an ambivalence at this juncture, she was most reluctant to give in to her longing to be back with her grandmother. This made for a hostile and dependent relationship with her grandmother.

One experience of note that happened early in the tutoring sessions was when Tulsa sent for a catalogue of girls' clothing to a mail order company. (She was studying sound-symbol relation 'c' and

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the researcher had brought an application blank for the mail order catalogue). The researcher helped Tulsa to fill out name, address, and requisition form. Tulsa asked the researcher to mail the card, which the researcher did. This event escaped the memory of the researcher until a few weeks later.

Upon returning to the group home for a tutoring session, the researcher saw Tulsa as the center of an excited, chattering group of girls. They were admiring Tulsa's mail order catalogue pictures of the different items for sale. The catalogue Tulsa had ordered through the mail had arrived. Tulsa informed the researcher that some other girls in the group home, her special friends, also wanted to send for catalogues through the mail and would appreciate if Tulsa could get them some application forms. She also brought the catalogue to school and happily shared its contents with some school friends.

Tulsa was administered the Stanford Diagnostic Reading Test, Blue Level in the first week of June. Results showed reading comprehension to be at grade equivalent 7.5; word meaning 5.3, and word parts 5.8. The test was given in two sessions as a power test in which no time constraints were set.

The large discrepancies between reading comprehension (7.5) and word meaning (5.2) might be explained by the fact that, in reading comprehension, Tulsa was able to make use of context clues, while in word meaning she was not. Her absence of time constraints probably served to relieve her fear and nervousness. Still, the great improvement that she made in five months time was significant. Also, the change in her attitude and personality and the positive reports issued by the school on Tulsa's last report card indicate that something positive happened in the attitude and ability of this girl.

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On the researcher's return to the group home to discuss with her the results of her test, Tulsa released the happy news. She would be returning to live with her grandmother in a week's time, just as soon as school was over.

Findings and discussion: For a girl who had difficulty comprehending what she had read because she could not recognize a word, even though she oftentimes knew its meaning, this methodology for teaching word decoding provided an effective technique for achieving systematic early gains. Such gains contributed immediately to improved performance in reading and was a major treatment component for the emotional, attitudinal and behavioral problems that were blocking Tulsa's effective instruction.

Recommendations: Although it is not proper to generalize from one case, it is noted here that the supervisor of the group home in which Tulsa resided has requested that this reading methodology be extended to children in the home who are reading disabled. The methodology needs to be replicated on a larger scale with children experiencing psychological and academic difficulties similar to Tulsa's. Surely, the schools have on register too many children who are being lost to the school system and society under present methodologies used in the schools.

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